

ABSTRACT OF THE DISCLOSURE

A source region (2) and a drain region (3) both containing n-type impurities are formed on a p-type Si semiconductor substrate (1) containing p-type impurities. On an active region of the surface of the p-type Si semiconductor substrate (1) between the source region (2) and the drain region (3), a gate insulating film (4) is formed. An n-type SiGe mixed crystal film (5) containing n-type impurities is formed on the gate insulating film (4) and a p-type SiGe mixed crystal film (6) containing p-type impurities is formed on the n-type SiGe mixed crystal film (5). A semiconductor device including such a transistor can further inhibit an increase in leakage current flowing between the gate electrode and the drain through the gate insulating film.